A Parent Guide to Speech Pathology in Schools

An Honors Thesis (HONRS 499)

by

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*Project

"A Parent Guide to Speech Pathology in Schools" is bound separately

Abstract

The purpose of this project is to provide parents with a comprehensive guide written specifically for them that describes different childhood speech and language disorders, how these disorders affect school performance, and different aspects of therapy in schools. Hopefully, this handbook will help parents to better understand why their children are in speech and/or language therapy, what goes on during these therapy sessions, and how speech and/or language therapy will help their children's overall success in the school setting.

The guide is divided into three sections. The first is "How to Use This Book," which explains why the guide was written, what it is to be used for, and what it is not to be used for. The second is "Speech-Language Disorders in the School Setting," which describes childhood speech language disorders, educational skills that can be affected, and suggestions for parents to do at home to help. The third is "Speech-Language Therapy in Schools," which provides information about special education laws, therapy reports, and what goes on in the school therapy room. The guide also includes a list of figures, references, and a subject index. Components of the project which are not included in the guide itself are appendices which address the formation, distribution, and results of a parent survey that was distributed to gain more insight into parents' specific needs in relation to the guide.

Acknowledgments

I would like to thank my thesis advisor, Mrs. Jeanne McMillan, who has helped me develop my ideas, critiqued my work, and arranged logistics of my project. Thank you for all of your help and encouragement.

I would like to thank Dr. Mary Jo Germani for her help in developing topic ideas, IRB Board correspondence, and logistical arrangements. Thank you for your help.

I would like to thank all of the school speech pathologists who distributed my survey, for their help in promoting my project, and providing me with additional information and encouragement.

I would like to thank all of the parents who returned my survey, especially those who made additional comments; they have provided me a concrete purpose for my project.

I would like to thank my roommate and best friend, who has provided me with physical labor (stapling and stuffing envelopes), support, and endless editing help.

I would like to thank my fiancé, who has gone through the honors thesis process with me, and who has offered editing help and support.

Finally, I would like to thank my parents, who have encouraged me throughout this project and throughout the whole of my academic career. Thank you for your love and support.

Developing
"A Parent Guide to Speech Pathology in Schools"

(required explanatory text for creative projects)

The following is an explanation of the process I went through in completing "A Parent Guide to Speech Pathology in Schools." Since this is a creative project, rather than a research paper, I felt that the project's development would be better expressed from a personal standpoint rather than a scientific one.

Developing the Project Idea

As I began developing topic ideas for my honors thesis, I decided that I wanted to create or research something that had to do with my major field of study, speech pathology. Although I didn't have to choose a topic from my major, I felt that it would further my knowledge in an area in which I am greatly interested, and that it would lend me academic credibility when I start looking for a job. I decided to look at ideas that had to do with speech pathology in schools, since that is where I would like to work in the future. I visited with my departmental advisor, who helped me come up with two ideas: one, a compilation of speech and language diagnostic test reviews, and two, a parent guide to speech pathology in schools. She also suggested a project advisor, a member of the faculty with whom I had never worked, but who had most recently worked as a speech pathologist in the schools. After developing outlines for each of my project ideas, I met with my new advisor, and we decided on my final project, "A Parent Guide to Speech Pathology in Schools."

The Survey

As part of my project, I decided to develop a survey (see Appendix D) to give to parents of children who participate in school speech pathology services to discover more about what parents want to know, and to get general feedback about my project idea. This survey proved to be the most difficult aspect of the project, but possibly the most rewarding. I developed the survey in the spring of 2001, hoping to distribute some surveys that summer, and the rest in the fall. What I didn't realize was that I would need IRB approval to distribute the survey. I received

approval over the summer by mail correspondence, and decided to send out the surveys in the fall. At the suggestion of my academic advisor, I sent out 25 surveys to 30 school speech pathologists in Indiana whose names and school addresses I found in the Indiana Speech Language and Hearing Association's directory. This equaled to 750 3-page surveys which I copied, stapled, and stuffed into envelopes with the help of some friends. I also wrote my name on 750 business reply envelopes. At the time, all this effort seemed too much for the small part the survey would play in my project; after all, it was just for ideas, not the basis of a research project. However, when the surveys began to come back in, I was glad that I had made them a part of my project. Although ultimately only 83 surveys were returned, a mere 11% of the number I had sent out, the parent comments I received assured me that my project was worthwhile and was something that would benefit both parents and children. They also reinforced my desire to work with school children. As a result, I have included much more information about the survey results than I had originally planned to in the appendices.

The Guide

One of the first decisions I had to make when beginning to write the guide was the format. I wanted a consistent, easy-to-read format with headings that seemed inviting and applicable to a parent's needs. For the first section of the guide, "Speech-Language Disorders in the School Setting," I decided to make a chapter for each category of disorders. Within each chapter I divided the information into four consistent headings. I decided to head each section with a question, such as "What is language?," and "What can I do at home to help?" to mimic a parent's approach to the information. For the second section, "Speech-Language Therapy in Schools," the format was easier to develop, as each chapter addresses a different part of the therapy process in the schools.

The second decision I had to make was how to present the information in such a way that parents could easily understand. I also had to decided how much information to include. This task was difficult at first, but became easier as I continued writing. The survey results, as well as reviews by lay people, helped me to modify and remove information that seemed to be too much or hard to understand. I also included many tables and figures to help parents better organize and understand the information.

My method of referencing does not follow the traditional APA style. Instead, I chose to

use end notes that correspond to superscript numbers within the text. I felt that parenthetical references or footnotes would be an unneeded distraction for parents who would most likely be uninterested in where each piece of information came from. However, for those parents that would like to know, the end notes are provided near the end of the book and are divided into chapters for easy locating.

Academic and Personal Gains

This project greatly increased my knowledge of speech language pathology. I had to explain subjects about which I have not yet taken classes, which helped me to establish a basic knowledge to build upon during graduate school. I also had to explain information in a parent-friendly way, which will certainly help me when I work with parents in a school. Overall, I enjoyed writing "A Parent Guide to Speech Pathology in Schools," and feel that it has helped to further my development in my chosen career.

Appendix A

List of School Speech Pathologists Who Received Survey

Kristie J. Lofland Carmel Clay Schools	Deborah K. Dean McClelland Elem. School	Maha S. Abouhalka Frankton/Lapel Schools
Rhea D. Minnick Anderson Comm. Schools	Erin M. Miller Monroe Central School Corp.	Linda M. Illingworth Scott Co. School District 2
Myra J. Akins Drew Elementary	Jana L. Horvath South Bend Com. School Corp.	Bonnie B. Hertzog Richmond Comm. Schools
Lynn Fleming Lawrence Twnshp. Schools	Jill M. Hagan Evansville School Corp.	Shelley L. Finet Greenfield Com. Schools
Joanne E. Kingdon Avon Comm. School Corp.	Sharron K. Egly East Allen Country Schools	Linda D. Tatman Washington Twnsp. Schools
Jana L.. Thompson Brownsburg School Corp.	Pamela J. Whitehead Crawfordsville Com. Schools	Peggy L. Norman Milan Comm. Schools
Sharon J. Hummer Waterloo Elementary	Christine M. Muhlenkamp Zionsville Comm. Schools	Barbara M. Fogle Muncie Com. Schools
Elizabeth V. Francis Lafayette School Corp.	Lonette M. Annen DeMotte Elementary	Karen A. Richards Perry Worth Elementary
Leslie A. McIntosh Noblesville Intermed. School	Jennifer A. Bailey Greater Jasper School Corp.	Marti Garrestson Lake Central School Corp.
Dwight C. Rodgers Elkhart Comm. Schools	Paula A. Hartz Kokomo Center School Corp.	Nancy B. Boling Shortridge Middle School

Appendix B

Letter Sent to School Speech Pathologists Who Received Survey

September 1, 2001

Dear School Speech Language Pathologist,

My name is Michaela Maitzen. I am a senior Speech Pathology student at Ball State University, and I am currently researching my senior honors thesis. I am writing to ask for your help with this project. The title of my thesis is "A Parent Guide to Speech Pathology in Schools." The purpose of this project is to provide parents with a comprehensive guide written for them that describes different childhood speech disorders, how these disorders could affect school performance, and different aspects of therapy in schools. Hopefully, this handbook will help parents to better understand why their children are in speech language therapy, what goes on during these therapy sessions, and how speech language therapy will help their children's overall success in the school setting.

The component of this project for which I need your help involves the distribution of an Institutional Review Board approved survey that I have included in this packet. With this survey, I hope to discover specific reasons why a parent guide to speech pathology in schools would be desirable, and reveal what specific questions, concerns, and needs parents have that should be included in this guide. This survey is important because it will give me a better perspective on parental needs to aid me in writing this handbook, and provide me with direct evidence that a handbook such as this would be beneficial.

I have included 25 surveys and 25 business reply envelopes in this packet. I would appreciate it if you would distribute a copy of the survey along with an envelope to the parents of as many of your speech students as possible, and encourage them to return the survey to me by simply placing it in the provided envelope and mailing it. I have also included one extra envelope. In this envelope I ask that you send me any standard paperwork forms or reports that you use to communicate with parents to help me with a section of my guide.

If you have any questions or comments please contact me or my advisor, Jeanne McMillan. Thank you for your help with my project.

Researcher
Michaela A. Maitzen
Ball State University
Speech Pathology Department
Muncie, IN 47306

Faculty Advisor
Jeanne McMillan
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Arts and Communications Building AC104
Muncie, IN 47306
(765) 285-8176

Thanks,

Michaela A. Maitzen

Appendix C

Letter to Parents of School Speech Clients Included with Survey

Dear Parents of School-age Speech Language Clients,

I am a speech pathology student at Ball State University. I am currently working on my senior honors project, creating a Parent Guide to Speech Language Pathology in Schools in the form of a handbook. Through this survey I would like to discover some of the questions, concerns, and needs you have in understanding your child's school speech pathology services. Participation in this survey is voluntary, but appreciated. The results of this survey may be used in the introduction to the guide. No personal information will be asked in order to keep anonymity.

This survey will take approximately 10-15 minutes to complete. When you have completed this survey, please send it back to me in the envelope provided. If you have any questions, please contact one of the following:

Researcher
Michaela A. Maitzen
Ball State University Speech Pathology Department
Muncie, IN 47306

Faculty Advisor
Jeanne McMillan
Ball State University Speech Pathology Department
Arts and Communications Building, AC104
Muncie, IN 47306
(765) 285-8176

Thanks,

Michaela A. Maitzen

Appendix D

Speech Pathology Parent Survey

SPEECH PATHOLOGY PARENT SURVEY

General Information

1. What is your child's gender? _____

2. How old is your child? _____

3. In what grade is your child? _____

4. For how many years has your child received speech language therapy services in school?

_____

5. Does your child receive speech language therapy services anywhere other than school?

_____

6. If yes, where (hospital, clinic, etc.)? _____

7. What (if known) is your child's speech language difficulty? (circle all that apply)

expressive language	receptive language	articulation
hearing loss	fluency / stuttering	voice
oral motor	traumatic brain injury	other _____

Speech-Language Therapy in Schools

1. How satisfied have you been with the information provided to you from your child's school about your child's speech difficulty?

very satisfied very unsatisfied

1 2 3 4 5

2. How informed do you feel about the diagnostic and therapy procedures used for your child at school?

very informed very uninformed

1 2 3 4 5

3. Do you feel that your questions about your child's therapy services in school are answered appropriately and thoroughly?

very much so not at all

1 2 3 4 5

4. Do you feel that you would like to know more about your child's therapy, but you don't know what to ask or feel uncomfortable asking questions?

very much so not at all

1 2 3 4 5

5. Do you feel that you don't have the time or the opportunity to learn what you would like to know about your child's speech language difficulty or about the therapy services he receives in school? very much so not at all

1 2 3 4 5

6. Do you feel that you would benefit from information about your child's speech language difficulty and different ways it could be addressed in schools put together into a parent guide?

very much so not at all

1 2 3 4 5

7. What areas concerning your child's speech language difficulties and/or therapy services in school would you like to know more about? Circle to what degree you would like to know about each area; 1 = a lot more, 5 = no more.

a. My child's speech language difficulty 1 2 3 4 5

b. The skills that can be affected by my child's speech language difficulty 1 2 3 4 5

c. Things that I can do to help my child with speech and language 1 2 3 4 5

d. Testing procedures that could be used to diagnose my child's speech language difficulty 1 2 3 4 5

e. Different types of therapy that could be used for my child 1 2 3 4 5

f. Components of different reports (diagnostic, IEP, progress, etc.) that are used in schools 1 2 3 4 5

g. Speech language terminology explained in layman's terms 1 2 3 4 5

h. Why specific techniques and practices are used 1 2 3 4 5

Additional Comments

Is there anything else that you feel would be beneficial to include in a parent guide to speech language pathology in schools?

Please share any other comments or suggestions you can think of.

THANK YOU FOR YOUR HELP!

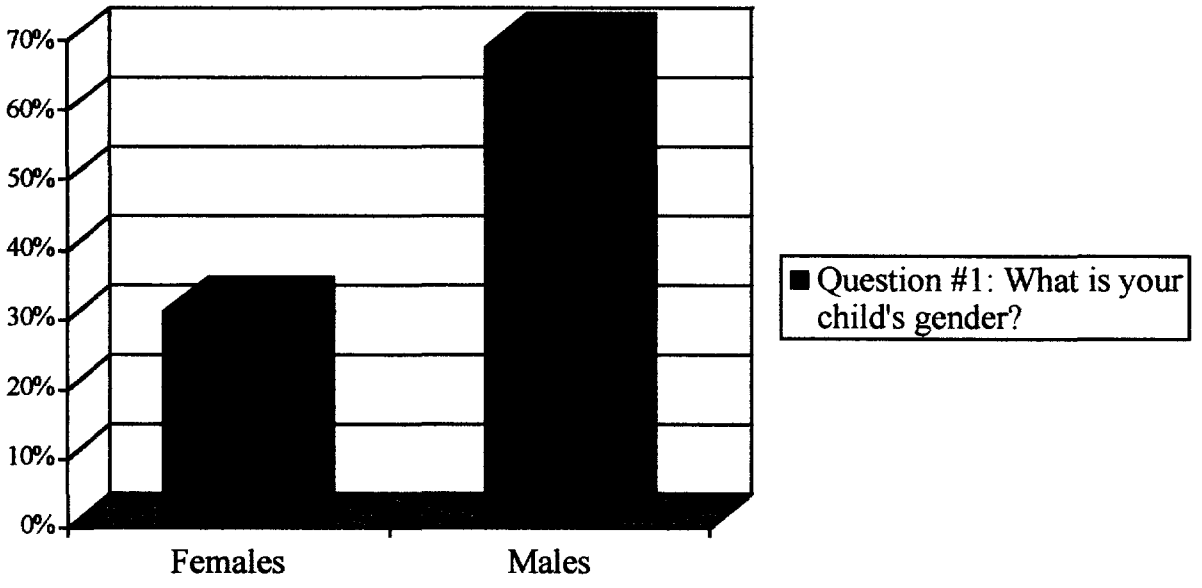
Appendix E

Statistical Results of Parent Speech Pathology Survey and What They Mean

The results of the parent survey are presented here in bar graph form. The results were obtained from the 83 surveys that were received. Results from the questions from the section of the survey entitled "General Information" are each represented by their own graph. The results from the questions in the section of the survey entitled "Speech-Language Therapy in Schools" have been categorized and broken down into levels based on each specific grouping of questions. Specifics are included with each graph in this section. I have also included an analysis of each graph in this section, explaining how the results support the creation of "A Guide to Speech Pathology in Schools."

General Information

1.



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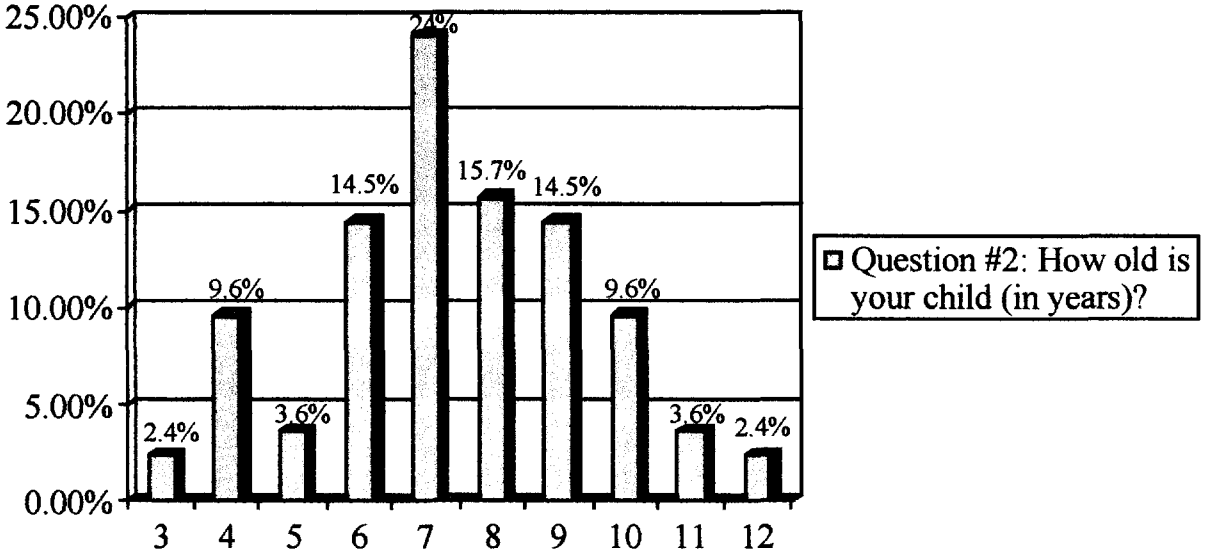
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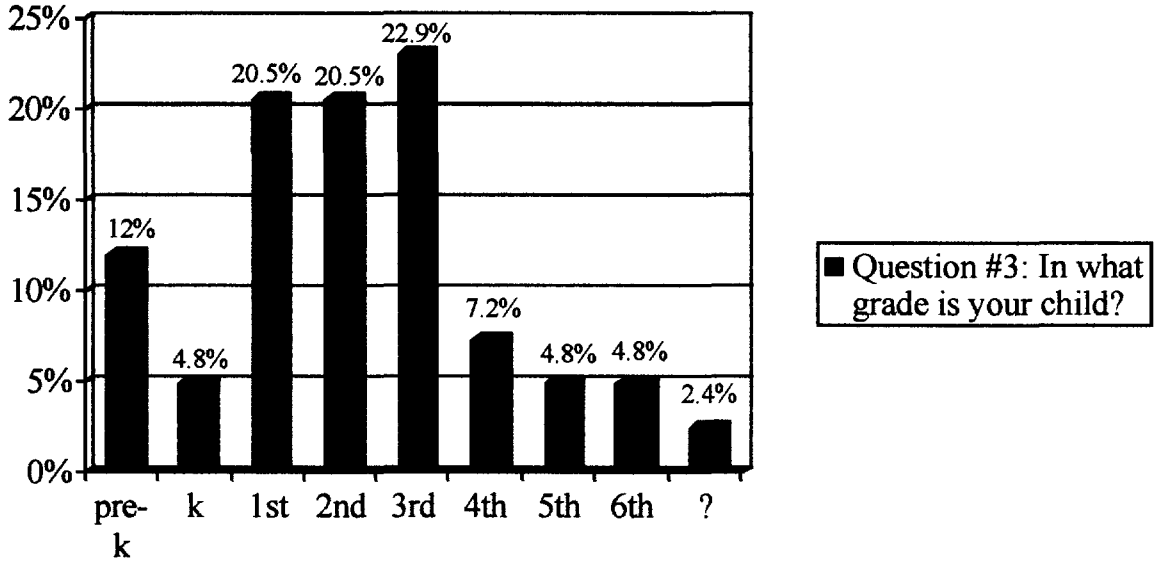
Question #2: How old is your child (in years)?

3.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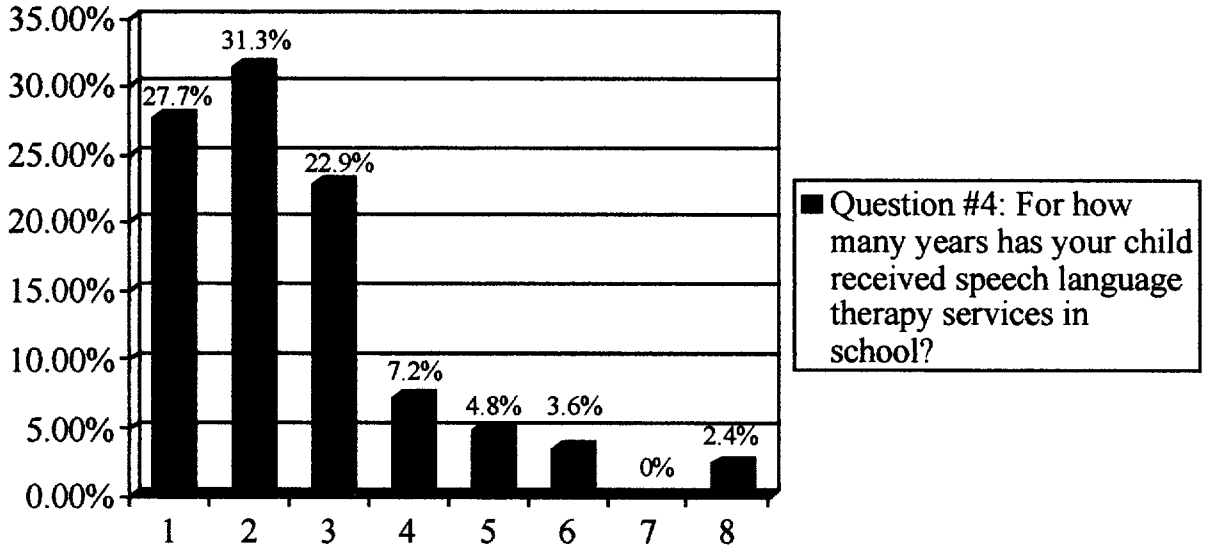
pre-k k 1st 2nd 3rd 4th 5th 6th ?
Question #3: In what grade is your child?

4.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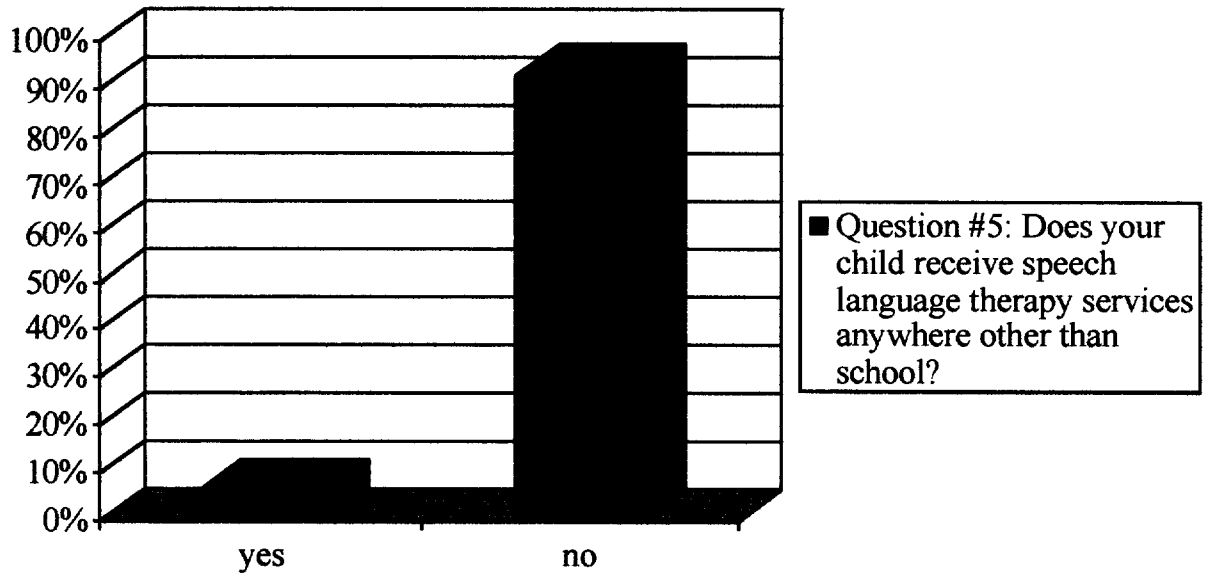
Question #4: For how many years has your child received speech language therapy services in school?

5.

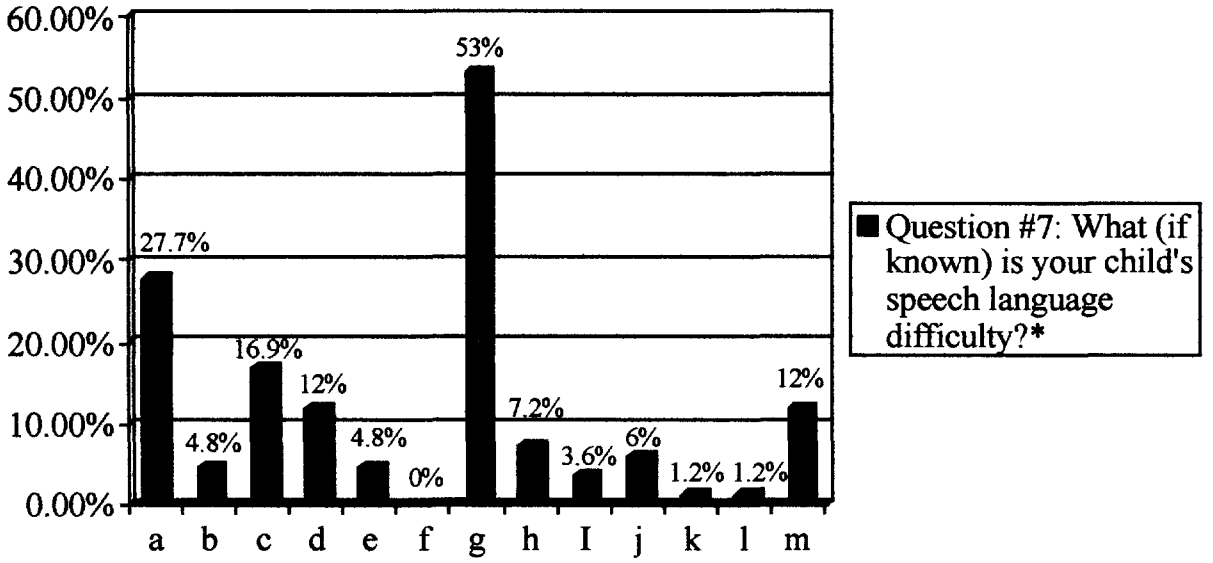

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
yes
no
Question #5: Does your child receive speech language therapy services anywhere other than school?

6.

Question #6: If yes, where (hospital, clinic, etc.)?

This question was not represented in graph form because the answers given were too specific to include (i.e. actual names of facilities).

7.



* Please note that many children have more than one difficulty.

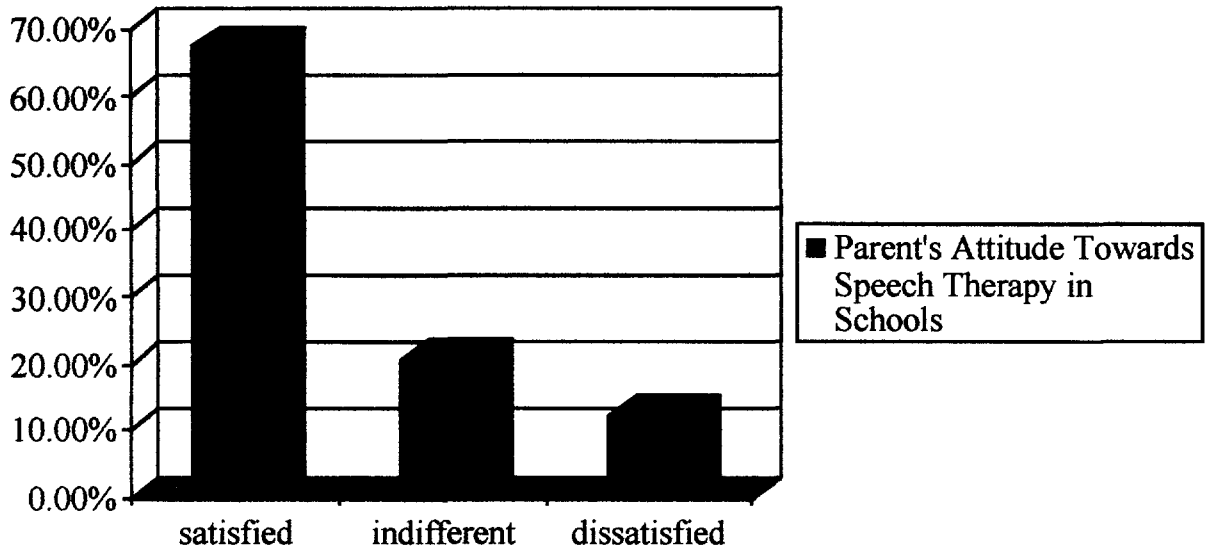
Each disorder was given a corresponding letter because the disorder names were too long to fit in the graph. The key is provided below:

a = expressive language	**b** = hearing loss	**c** = oral motor
d = receptive language	**e** = fluency / stuttering	**f** = traumatic brain injury
g = articulation	**h** = voice	**i** = autism°
j = auditory processing°	**k** = Down syndrome°	**l** = jaw problems°
m = disorder not indicated		

° Letters 'i' through 'l' were disorders listed by parents in the "other" choice for this question. The rest of the disorders were already listed in order for parents to circle.

Speech-Language Therapy in Schools

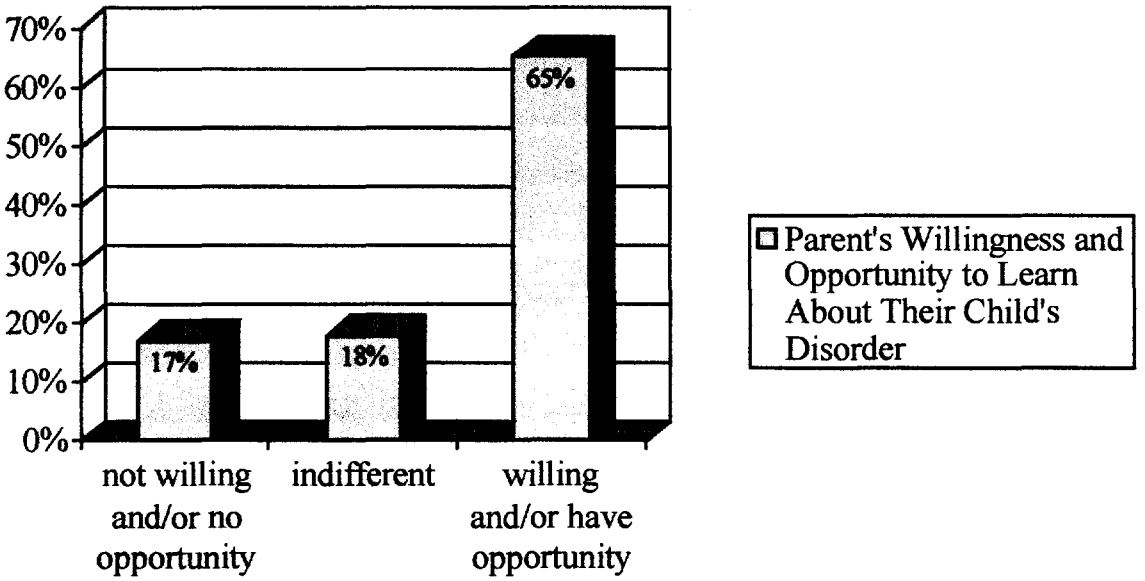
1., 2., 3.



These results were compiled from questions 1 through 3 in the "Speech-Language Therapy in Schools" section. These three questions all had to do with different aspects of parents' satisfaction with the speech therapy services at the school their child attends. From a scale of 1-5 given on the survey, the rating of 1 or 2 represents a "satisfied" attitude, the rating of 3 represents an "indifferent" attitude, and the rating of 4 or 5 represents a "dissatisfied" attitude.

The high level of parents' satisfaction, 67.5%, with their schools' speech pathology services indicates that schools are, for the most part, meeting parents' needs. However, there is still 32.5% of parents who are indifferent or do not feel that their needs are being met. I think that "A Parent Guide to Speech Pathology" will help to meet the needs of those who are not satisfied with their schools, as well as enhance the experience of those parents who are already satisfied.

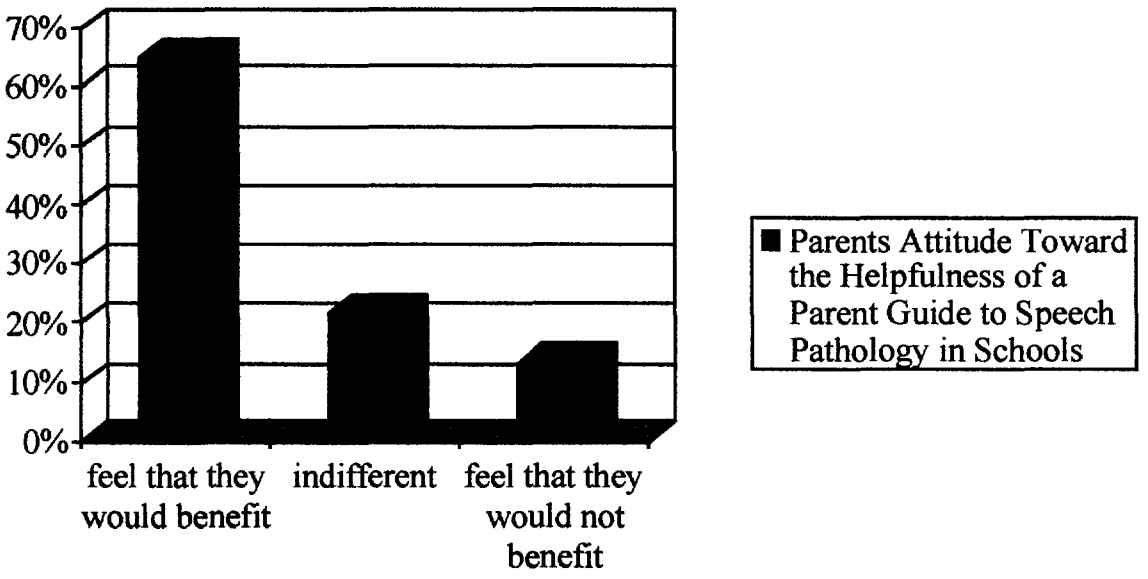
4., 5.



These results were compiled from questions 4 and 5 of the section "Speech-Language Therapy in Schools." These two questions assessed the parents' willingness and opportunity to learn more information about their child's speech disorders. From a scale of 1-5 given on the survey, a rating of 1 or 2 represents "not willing and/or no opportunity" to learn about their child's disorder, a rating of 3 represents an "indifferent" attitude, and a rating of 4 or 5 represents "willing and/or opportunity" to learn about their child's disorder. To clarify, the word "opportunity" used here could mean "time" or "ability," depending on how each parent interpreted the questions. The nonspecific nature of these two questions is something that should be improved if the survey is ever given again.

It is encouraging that 65% of parents are willing and able to learn more about their children's speech language disorders. I think that "A Parent Guide to Speech Pathology in Schools" will help them to continue to do so. For the other 35% of parents who are indifferent or are not willing or able to learn about their child's disorder, I hope that the parent guide will encourage and enable them to do so.

6.

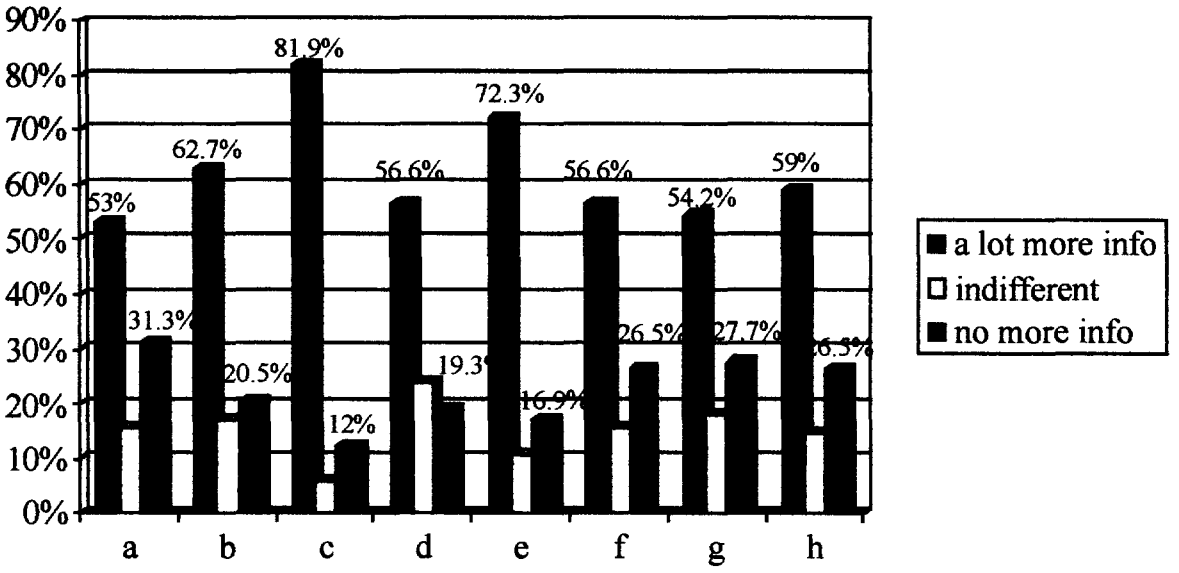


The results presented here are from question number 6 only. I felt that this was the most important question to support the creation of "A Parent Guide to Speech Pathology in Schools." From a scale of 1-5 given on the survey, a rating of 1 or 2 represents parents' "feeling that they would benefit" from the guide, a rating of 3 represents an "indifferent" attitude, and a rating of 4 or 5 represents parents' "feeling that they would not benefit" from the guide.

It's clear that a majority, 65%, of parents feel that "A Parent Guide to Speech Pathology in Schools" would be beneficial. Hopefully, the other 35% of parents are learning about their children's speech language disorders and school speech pathology services in other ways, or that they are already informed. Some parents whose children have been in school therapy for many years are most likely well informed, and would not need a guide with basic information. The guide is geared more toward parents who are just entering the school therapy process, or who have been confused about it before. It is these parents for whom the guide would be the most beneficial.

7.

Question #7: What areas concerning your child's speech language difficulties and/or therapy services in school would you like to know more about?



Each area was given a corresponding letter because the area descriptions were too long to fit in the graph. The key is provided below:

a = My child's speech language difficulty	**b** = The skills that can be affected by my child's difficulty
c = Things that I can do to help my child with speech and language	**d** = Testing procedures that could be used to diagnose my child's speech language difficulty
e = Different types of therapy that could be used for my child	**f** = Components of different reports that are used in schools
g = Speech language terminology explained in layman's terms	**h** = Why specific techniques and practices are used

The results presented here are from question 7 only. Each of the areas shown were listed for the parent to rate on a 1-5 point scale. A rating of 1 or 2 represents wanting to learn "a lot more information" about an area, a rating of 3 represents an "indifferent" attitude, and a rating or 4 or 5 represents wanting to learn "no more information" about an area.

Because the majority of parents surveyed want to know "a lot more information" about

every area listed, I have included them all within the parent guide. Area 'c,' "things that I can do to help my child with speech and language," was the area about which parents want to learn the most. This came as no surprise since I expected that parents would want to be more involved in their children's speech and language development and would want suggestions as to how to do this as a parent rather than as a teacher. I have provided this information at the end of each chapter in the first section of the guide. The area that came in second place was area 'e,' "different types of therapy that could be used for my child." This result did surprise me. I didn't think that parents would be interested in knowing the specifics of different therapy methods, and would see this area as "up to the therapist." In the section of the guide entitled "In the Therapy Room: Speech Language Therapy," I have provided descriptions of the different types of therapy used in schools in a way that would be most informative and relevant for a parent.

The area about which parents wanted to learn the least was area 'a,' "My child's speech language difficulty." This percentage (31.3% answered "no more information") greatly surprised me, since this area comprises most of the first section of the guide. However, after some analysis, I realized that this area was very broad, while the other areas were more specific, which might have accounted for the lack of interest. If I were to send out this survey again, I would reword area 'a.' Also, as stated in the analysis of question #6, the parent guide is geared toward parents whose children are just beginning the school therapy process or who are just being diagnosed, and the majority of parents I surveyed have children who have been in school therapy for at least two years or more (see question #4 in General Information), so they may already understand their children's disorders. However, even with a lower interest, this area had a 53% majority who do want to learn more about their children's speech language disorder, so I feel it is still a very important part of the guide.

Appendix F

Compilation of Parent Comments Received and Explanation of Why They Were or Were Not Included in the Guide

The comments here are compiled and categorized so that there are no repeated ideas. One person's comment may serve to represent other similar comments made. I have included some general parent comments on both the survey and the idea of a parent guide. I have also created a separate category for suggestions of items to include in the guide. In this category, I have added statements for each as to why or how I have or have not included the suggestion in the guide.

General Comments

"My main concerns are how the disability affects my child and how I might be able to help."

"Parent guide seems like a great idea!"

"I believe parents need to be the number one guide in seeking help for their child."

"Your idea of a handbook is great!"

Suggestions of What to Include in the Guide

"Reasons for speech difficulty other than head injuries."

- Included in each chapter of Section 1 there are possible causes listed for each disorder.

"Any information, no matter how petty should be discussed."

- The guide provides general information for a parent of a child with a speech and/or language disorder in school therapy. The guide is too extensive in it's subject matter to be extremely specific.

"Techniques that can be used at home that won't seem like the children are being overwhelmed."

- For every chapter in Section 1, there are suggestions for natural things to do at home. Not included are suggestions for "homework" or "drills," as they can be overwhelming and even counterproductive for a child.

"Story examples - whether real life or other to help me connect with what you are trying to relay."

- I have not included many story examples, mainly due to my limited clinical experience from which to draw. However, I have used examples and figures to help illustrate the information.

"Explain what exactly auditory processing disorder is."

- Central auditory processing disorder can be difficult to understand, as it is similar to a language disorder and can be mistaken as such. This disorder is explained in the "Hearing Disorders" chapter.

"Ways for parents to accept the disability."

- Information is the key to accepting a disorder. Hopefully through the information and suggestions provided in this guide, parents will not find their children's disorders so frightening or untouchable.

"Hope - encouragement to keep supplying a variety of input even when there is little or no output."

- Within each chapter in Section 1, there is a section entitled "What can I do at home to help?" This section concentrates on encouraging parents to provide speech input as much as possible to expose children to language.

"To know how much earlier speech delay can affect later development problems with reading and spelling? Even social skill?"

- There is a strong effect, and this is discussed in applicable Section 1 chapters: "Language Disorders," "Articulation Disorders," and "Hearing Disorders."

"Guidelines followed; how progress is measured and reported."

- Both of these are addressed in their own chapters: "Special Education Laws: What is Your Child Entitled To" and "Reporting: Designing Programs and Tracking Progress," respectively. In fact, the chapter on special education laws was added in response to this

comment.

"Studies on the prolonged use of pacifiers."

- Unfortunately, this suggestion was too specific to fit into the guide.

"I think the guide should describe what the parent/child should expect to happen throughout the year in therapy."

- This is addressed in the chapters "Reporting: Designing Programs and Tracking Progress," "In the Therapy Room: Speech Language Assessment," and "In the Therapy Room: Speech Language Therapy."

" Make sure not only the speech therapist knows what kind of difficulties the child has, but also anyone else at the school that comes in contact with the child."

- This comment inspired the chapter called "Communication Disorders in a Global Setting."

"An organized progress chart so parents can know [their child's progress]."

- Unfortunately, a progress chart would have to be specific to a child's individual disorder and characteristics of his therapy. However, several developmental milestone tables have been included that can be used to track a child's progress by comparison.

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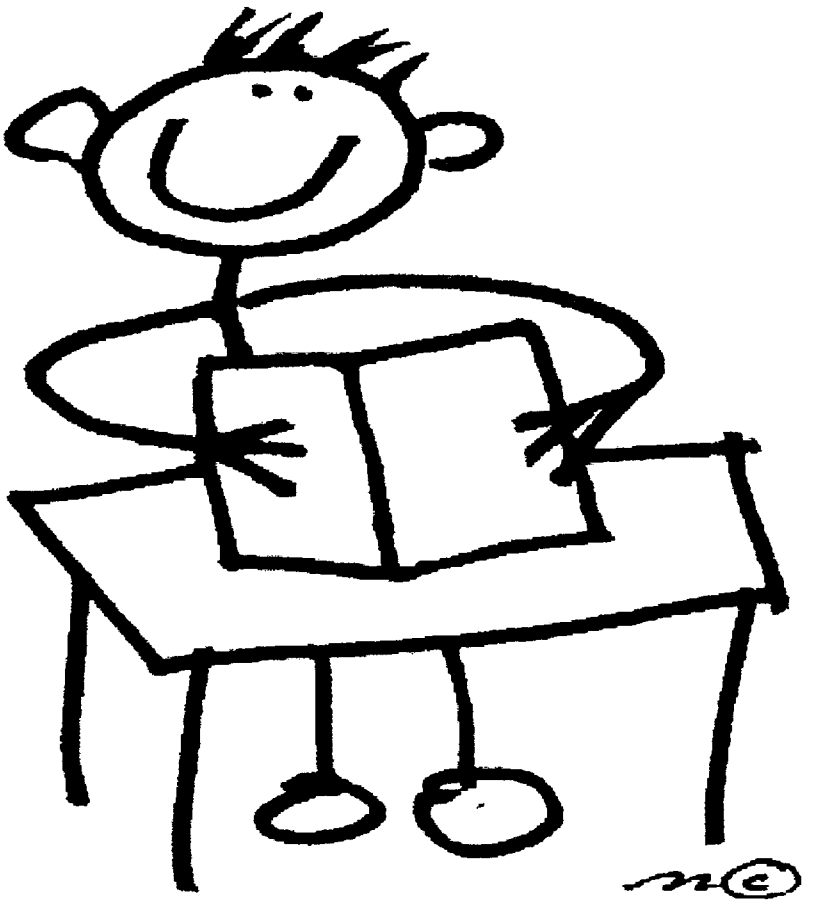
to Speech Pathology in Schools



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How to Use This Book

Introduction

As the parent of a child with a speech and/or language disorder, you are probably interested in receiving, or have already begun receiving, assistance for your child. If you have sought speech and/or language therapy at a hospital, clinic, or private practice, you have most likely spoken at length with a speech language pathologist (SLP), had an opportunity to ask questions, and may have even observed or participated in diagnostic and therapy sessions. A more common situation, however, is a child who receives therapy services in the school setting. Because children who have been diagnosed with a speech language disorder are eligible for free therapy services in a public school, many parents opt to use those services alone, or in addition to outside therapy.

Speech language therapy in the school can be an extremely beneficial experience for your child. One drawback, however, is that there is not as much opportunity to keep in constant contact with your child's therapist as there might be in a hospital, clinic, or private practice. In a recent study conducted by the American Speech and Hearing Association (ASHA), it was found that speech language pathologists in schools spend less than 5% of their time communicating with families.[1] What this means is that, while your child receives a lot of attention from his SLP, you may be left in the dark. This is the reason why "A Parent Guide to Speech Pathology in Schools" was developed.

What This Guide Is

This guide is designed to provide you with information about your child's disorder and what to expect from his therapy in school, and to answer general questions about your child's therapy that you may not get the opportunity to ask. For your convenience, this guide is separated into two parts: "Speech Language Disorders in the School Setting" and "Speech Language Therapy in Schools."

Speech Language Disorders in the School Setting

This portion of the guide addresses the different speech and/or language disorders that your child may have. Each chapter discusses one disorder or group of disorders, it's characteristics, what educational skills could be affected, and suggestions for you to do at home to help. All you have to do is flip to the chapter on your child's disorder to have all of this

information at hand.

Speech Language Therapy in Schools

This portion of the guide takes a look at the process of therapy in schools. Chapters in this section discuss special education laws, standard reports that you might receive from you child's clinician, diagnostic methods, and therapy methods. This section is designed to help you understand what goes on in school therapy sessions, and how you can get the most out of them for your child.

What This Guide Is Not

As you can probably imagine, there are standard methods and procedures that are widely used in school speech language therapy programs. However, your child, his therapist, and his school are unique, so this guide cannot completely explain your child's speech language disorder or what is going on in his therapy sessions. It is meant to be a supplement to help you better understand information that comes from your child's therapist. Specific questions regarding your child's disorder or therapy should always be directed to the therapist working with your child. Remember, SLP's are there for you and your child. However, they may not know that you have questions or concerns that are not being addressed. It is important to them that you are an active participant in you child's "clinical team," so don't be afraid to ask for information, explanation, or clarification.

The Parent

Not only is this guide written for parents, but is also, in part, written by parents. Eighty-three completed surveys designed specifically for this guide were submitted by parents of speech language disordered children participating in school therapy. They have provided questions, concerns, and suggestions, many of which were included in this guide.

Hopefully, the information in this guide will help you to be an active participant in your child's school therapy experience. After all, the parent is the child's most important advocate.

Section 1

Speech-Language Disorders in the School Setting

Language Disorders

What is language?

Language is a system for communication made of sounds that are arranged into words, "with rules for combining these words into sequences that express thoughts, intentions, experiences, and feelings."[1] Basically, language is the way humans communicate with each other. There are five levels of language: units of sound (phonology); words, prefixes, and suffixes (morphology); word order (syntax); sentence or phrase meaning (semantics); and language usage in social contexts (pragmatics). If one or more of the last four of these levels (morphology, syntax, semantics, and pragmatics) are abnormal, we consider it a language disorder. (If phonology is affected it is considered an articulation disorder.)[2]

Figure 1.1 The Five Levels of Language

Level	Description	Examples
Phonology	units of sound	"Book" is made up of sounds /b/, /u/, /k/.
Morphology	units of meaning; words, prefixes, suffixes	"Book"= 1 unit of meaning, "books"= 2 units of meaning (item+plural).
Syntax	word order	"Help my chicken eat" vs. "Help eat my chicken" - word order is the difference.
Semantics	sentence or phrase meaning	"My tree plugs a farm" makes sense grammatically but has no meaning; "My tree grows" has meaning.
Pragmatics	language usage in social contexts	Talking to a teacher or boss requires different language than talking to your friends.

No matter where we are born or what language we speak, we learn language in the order of these five levels. First we imitate sounds, then we begin to form words, phrases, and then sentences, and finally we are able to functionally communicate in many social situations.[3] By middle school age, language should be almost fully developed.

Figure 1.2 Is your child on track? Language Milestones[4]

Age	Abilities
9 mos. to 1.5 yrs	Speaks first words and understands their meaning
1.5 to 3 yrs	Knows up to 1,000 words, says short sentences, follows commands
3 to 5 yrs	More than 1,500 words, social speech develops, more complex sentences
5 to 6 yrs	Uses pronouns, verbs, past and present tense, "why," "because," and "if"
6 to 10 yrs.	Steady development of sentence complexity and length, more complex ideas
10 yrs. and up	Approaching full adult language ability, abstract ideas, hypothesis formation

What is a language disorder?

There are two types of language disorders. The first type is called **specific language impairment, or SLI**. Language deficits can be caused by many different factors, such as hearing loss, low IQ, parental neglect, or brain damage, but sometimes there seems to be no cause for language difficulty. This is characteristic of SLI.[5] SLI occurs when there is "a disruption in the usual rate and sequence of specific emerging language skills." [6] One or all language levels could be affected. It is up to the speech language pathologist to determine what specific skills need to be worked on.

The second type of language disorder, although it is not always considered a full-blown disorder, is called a **language delay**. The term language delay means that the language learning process is not disrupted or learned out of order, as with SLI, but that the child is behind where he should be in language development according to the norm for his age. Keep in mind that "normal" is different for everyone. The standard for normal is a range based on the testing of the language skills of thousands of children.[7] Language delay is generally divided into receptive delays and expressive delays. A receptive delay means that a child has trouble understanding what is said to him, while an expressive delay means that a child has difficulty expressing what he wants to say. While it is possible for a child to have both a receptive and an expressive delay, many times a child has only one or the other.

What educational skills could be affected?

Following Directions

Understanding directions is a common problem for those children with a receptive disorder (i.e. a receptive language delay, or SLI with receptive problems).[8] Following directions is a very important skill needed throughout the school years. Academic success is dependent on whether or not a child can understand what is asked of him. A child might be labeled "a problem child," or be diagnosed with a behavioral disorder, when really he just cannot comprehend what is being asked of him. Keep in mind, directions have different levels of complexity, and children with receptive disorders usually have increased problems with an increase in complexity. For example, a simple direction might be "Get the book," while a more complex direction could be "Get the book, open it to page five, and read the first paragraph." As you probably know, the second direction is very characteristic of the language that is used in an elementary school classroom. In a case like this, the receptive disordered child is at a disadvantage from the very start.

Reading

Reading is another essential skill for the classroom. Reading is most certainly a receptive language skill, but it is different from listening. When a child is asked to learn to read, "[he] learn[s] how to transform a visually displayed code into the language which it represents."[9] However, as we know, written words and spoken words follow different rules. For example, the vowel part of the word "b<u>oo</u>k" is spelled just like "sp<u>oo</u>k," but the sounds are different, and this is just a simple example. What about words like "<u>ph</u>antom" and "th<u>ough</u>," not to mention silent letters as in "su<u>b</u>tle." This can be confusing for any child; imagine how hard it is for someone who already has trouble speaking or understanding. Sounds and spellings are not the only problems; "to read is to comprehend the messages and ideas conveyed by the text. This requires knowledge of the vocabulary, concepts and syntax of the language which has been coded."[10] Writing, an expressive task, stems directly from reading, so if a child has a problem reading, he will most likely have a problem writing as well. In addition, if a child has an expressive disorder only, he may have no trouble reading, but have difficulty with writing.[11]

Participating in a Conversation

Conversation involves listening and speaking, so it is a receptive and expressive task. Depending on the number of speakers, having a conversation may be one of the most demanding skills for a language disordered child. Conversational skill is an essential ability needed for school, but more than that, it is a social skill that is necessary for any relationship, be it with someone you talk to in line at the grocery store or your spouse. In the case of a child, social skills for relationships to come are learned largely through relationships in school with teachers, staff, and most of all, other students. If a child is "not good at" speaking and understanding language, he might avoid opportunities to converse with other people, or other children may ignore or even make fun of him.

Figure 1.3 Expressive and Receptive Tasks

Task	Receptive	Expressive
following directions	X	
reading	X	
writing		X
telling a story		X
listening to a story	X	
asking questions		X
answering questions	X	X
conversation	X	X

What can I do at home to help?

- Remember that your child is in school all day. Don't make him feel like his home is just for more school work.
- Talk with your child often. Show him why he is learning better communication skills. Speech class should not be one of those school subjects where you think "when am I ever going to need this?"
- Instead of constantly correcting your child, talk to him in shorter phrases and sentences and encourage him when he succeeds in speaking correctly. You can also use a technique

speech therapists use called expansion. Expansion means that you repeat what your child has said and add to it a little bit.[12] For example, if your child says "I played checkers for games," you can answer, "At school you played checkers during game time?"

- Never punish your child because he can't say or understand something correctly; instead modify your own language to suit his level. Research has shown that positive reinforcement is much more effective than punishment.[13] Also, by school age, he is probably pressured enough by himself and his peers that you do not need to add to it. Remember, he is not disobeying you or trying to be a smart alec, he just honestly cannot understand.
- Read on your own and with your child often. This will help to show him that words can be fun, not just frustrating. Also, the more exposure to words he gets the better the learning situation will be.
- Play word games such as rhyming, clapping syllables, and songs. This is another way to show your child that words can be fun.

Articulation Disorders

What is articulation?

Articulation is the way we form sounds with our vocal folds, hard palate, soft palate, tongue, teeth, and lips. When talking about articulation, speech pathologists categorize consonant sounds by looking at three characteristics: place, voice, and manner. "Place" refers to where in the mouth the sound is formed. For example, the "b" sound is made at the lips, while the "s" sound is made with the tongue and the teeth. "Voice" describes whether a sound is made with voicing caused by vibrating vocal folds, or just air. For instance, the sounds "k" and "g" are made in the same place in the mouth, but "g" uses voicing, while "k" uses only air. "Manner" has to do with how the air is manipulated in the mouth when making the sound. For example, for the sound "m," the air is directed through the nose, while for the sound "f," the air is directed between the upper teeth and and the lower lip creating a hissing noise.[1]

Speech pathologists use IPA, or the International Phonetic Alphabet, to identify each sound. As you probably know, the sound of a word is often very different from its spelling. For instance, take the word "daughter." There are eight letters in this word, but only four sounds: "d-augh-t-er."[2] Notice the spelling of the vowel sound in "daughter." This sound can be spelled differently in other words, like "water" and "bought." In IPA, there is only one symbol used for this sound. The symbol for each sound is called a phoneme. Many times, speech pathologists use these symbols in reports for children with an articulation disorder.

Figure 2.1 Consonant Sounds in the International Phonetic Alphabet [3]

Phoneme	Example	Phoneme	Example	Phoneme	Example	Phoneme	Example
p	pat	b	bat	w	will	m	mat
f	fall	v	vat	θ	thank	ð	that
t	tap	d	doll	s	sun	z	zap
l	lip	n	nap	ʃ	share	tʃ	chair
dʒ	jump	r	roll	j	yell	k	cup
g	go	ng	sing	h	hi		

Figure 2.2 Vowel Sounds in the International Phonetic Alphabet [4]

Phoneme	Example	Phoneme	Example	Phoneme	Example	Phoneme	Example
i	he	I	hid	eI	may	ɛ	head
áe	mad	ɝ	her	ʌ	tub	u	who
U	book	ou	toe	ɔ	crawl	a	hop
ɔI	boy	aU	house				

What is an articulation disorder?

An articulation disorder is characterized by the mispronunciation or deletion of speech sounds. Articulation disorders are the most common type of disorder treated in schools.[5] There are four types of articulation disorders: developmental articulation delays, phonological system disorders, oral motor disorders, and articulation difficulties caused by facial deformities.

A **developmental articulation delay** occurs when a child never learns or doesn't use the correct pronunciation of certain sounds. As children are learning to speak, most do not immediately produce all of the sounds correctly. For instance, many children say "wabbit" instead of "rabbit" until they figure out how to make an "r." We describe this phenomenon as a delay when the child has passed the age at which most children learn the correct sound. Sometimes a child can produce the correct sound when they are asked to repeat it or to try hard. In this case, the misarticulation is easier to correct; it can be likened to a bad habit that just needs some concentration and practice to fix. If the child cannot figure out how to make the correct sound even while repeating or concentrating, it may take more time, as well as instruction, to fix.

Figure 2.3 Is your child on track? A Speech Sound* Development Time Table[6]

Age*	3	4	5	6	7	8
Sounds Learned	p, m, h, n, w	b, k, g, d	t, ng	r, l,	ch, sh, j, th (as in thank)	s, z, v, th (as in that)

* sounds are in regular English, not in IPA

* ages represent the latest age by when sounds should be learned

Sometimes the sounds a child has trouble with follow a pattern. A speech pathologist can determine if there is a pattern by looking at the three characteristics of articulation: place, voice, and manner. A pattern might be that a child changes all sounds that occur in one manner to a different manner, or maybe he omits all consonants at the ends of words. This type of articulation disorder is called a **phonological system disorder**.[7] The good thing about a phonological system disorder is that many times when one sound is corrected, the other sounds become correct automatically. This occurs because the child subconsciously views each sound as part of the pattern, so when one sound changes, it is really changing the whole pattern.

The third articulation disorder is **oral motor disorder**. Oral motor describes several types of disorders in which a child's brain has trouble coordinating the palate, tongue, teeth, and lips to form sounds. Apraxia or dyspraxia is a disorder in which the brain's signal to the mouth is disrupted, so that the child knows what he wants to say, but cannot get it to come out right. Dysarthria describes a disorder in which the brain causes the facial and oral muscles to be weak, slow, and uncoordinated, so that articulation is physically difficult.[8] A third disorder has to do with sensory integration, in which a child has trouble dealing with all of the input from the senses that is needed for speech, such as the feel of the mouth, the sound of the words, and the visuals going on around him.[9]

The forth type of articulation disorder is **articulation difficulties caused by facial deformities**. Obviously, children who have been born with misshapen or missing oral or nasal structures will have trouble making correct sounds. The most common deformity is cleft palate or cleft lip, in which the hard palate, soft palate, or lips are not completely fused.[10]

What educational skills could be affected?

Asking Questions

Pure articulation disorders, that is those articulation disorders that are not part of another disorder, rarely have direct academic difficulties associated with them. However, academic problems could arise if a child is embarrassed about his speech and resists asking for help or asking questions of his teachers. He may be of normal, or even high intelligence, but because he does not participate in class, clarify directions, or ask questions about what he doesn't understand, his academic success could plummet.

Social Skills

Social skills, both in dealing with peers and authority figures, are learned mostly in school. If a child has an articulation disorder, he may resist speaking in class, to his classmates on the playground, or to his teachers individually. If this is the case, he will not get to experience many social relationships. Worse, if other children tease him about his articulation problem, his self esteem may become low.

What can I do at home to help?

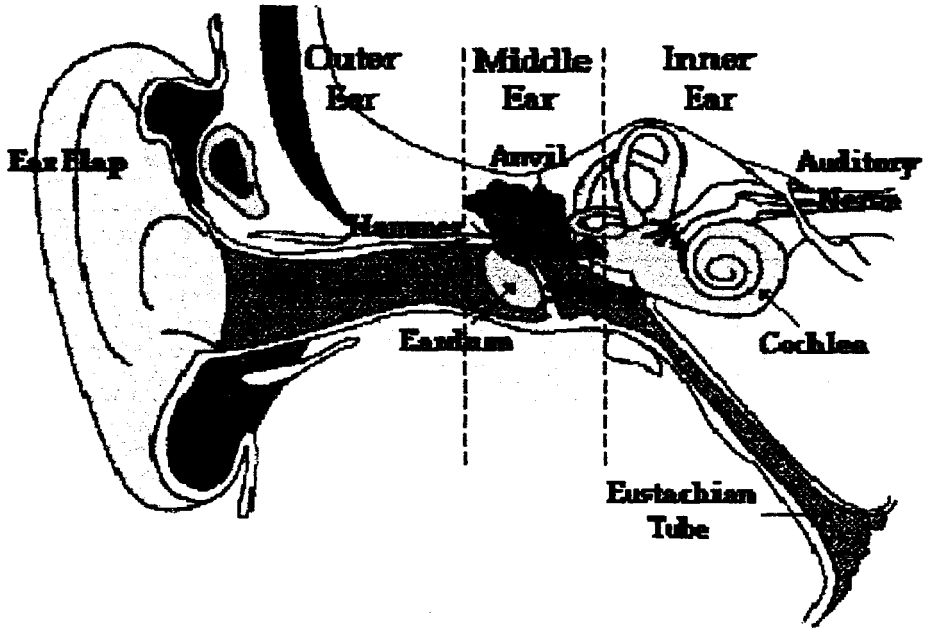
- Remember that your child is in school all day. Don't make him feel like his home is just for more school work.
- Demonstrate the pronunciation of sounds by speaking correctly yourself.
- If you know that your child can articulate correctly when he thinks about it, remind him to practice correctly when he is speaking. There's no need to make deals, such as "If you say your "s" sound correctly all night, you'll get dessert." He's learning a new way to speak, and just needs to be reminded once in a while.
- Foster your child's self esteem as much as possible. Some things you can do to improve your child's self esteem are: really listen to him, take him seriously, be with him instead of just doing things for him, give positive words and affection, respect and enjoy him.[11]
- Children who suffer from oral motor disorders might benefit from occupational therapy. Some schools offer this service, or you could visit your local hospital.
- If your child has a disfiguring disorder, it may be helpful to look into corrective surgery options. Your doctor can tell you how much surgery would benefit him.

Hearing Disorders

What is hearing?

Hearing is essential to communication. It is the way we receive and interpret sound waves that come to our ears through speech or other noise.[1] Hearing involves both the physical reception of sound through the ear to the brain, and the way the brain interprets the sound into something meaningful. We receive sound through the ear. The ear is divided into three parts: the outer ear, the middle ear, and the inner ear. Below is a diagram of the ear with labeled components separated into the outer, middle, and inner parts.

Figure 3.1 The Ear



Sound waves cause vibrations that are conducted through the parts of the ear to the auditory nerve. Here, the vibrations activate neurons which are fired up the nerve to the brain. The neurons continue firing until they reach different parts of the brain that integrate information to tell us what we are hearing.[2]

What is a hearing disorder?

Hearing disorders are divided into two categories: hearing loss and central auditory

processing disorder. The difference between these disorders is vast, yet they are still categorized under the same name because they both have to do with the hearing mechanism. **Hearing loss** is the most well known type of hearing disorder. There are many causes of hearing loss. Causes can range from a prenatal genetic mutation, a component of another disorder, a serious childhood illness, too much exposure to loud noise, or multiple middle ear infections. Hearing loss can be conductive or sensorineural. A conductive loss means there is something physically blocking sound from entering the outer or middle ear such as a deformity of the ear, and is usually treatable through surgery. A sensorineural loss means that there is something wrong in the inner ear, the auditory nerve, or the hearing center in the brain, and cannot be completely corrected.[3]

Degrees of hearing loss are broken down into five descriptive levels based on decibels (the measure of loudness). Your audiologist will test your child's ears for the lowest decibel level each ear can detect (or the softest sound they can hear), and then use a chart similar to the one below to describe the degree of hearing loss.

Figure 3.2 Degrees of Hearing Loss[4]

Description	Softest Sound Heard	Sounds Within This Range
Normal Hearing	-10dB to 20dB	leaves falling, birds chirping, sounds p, h, t, s, th, t
Mild Hearing Loss	25dB to 40dB	sounds z, v, m, b, d, i, g, ch, sh, k
Moderate Hearing Loss	40dB to 55dB	sounds j, n, ng, e, l, u, o, a, r
Moderately Severe Hearing Loss	55dB to 70dB	piano music
Severe Hearing Loss	70dB to 90dB	noise from a lawn mower
Profound Hearing Loss	90dB+	noise from an airplane

The degree of your child's hearing loss, the age at which he became hearing impaired, and how soon the hearing loss was addressed, will affect how well or poorly he does with speech and language. Degrees of hearing loss above severe can usually be helped somewhat by hearing aids, however hearing aids cannot completely raise hearing into the normal range unless the loss is only mild to begin with. Information about fitting your child for a hearing aid should be discussed with your audiologist. There are also devices that your child's school should be able to purchase called auditory trainers. An auditory trainer is essentially a microphone that the teacher wears that can be directed through a freestanding speaker, or directly into your child's ear.

Parents of a child with a severe to profound hearing loss may encounter some controversy on how to treat his hearing loss. These children are considered deaf if they cannot detect spoken language with or without a hearing aid.[5] When raising a deaf child it is necessary to consider what communication method you will use. Some parents choose to enroll their child in speech therapy to learn lip reading and spoken language, others choose to embrace deaf culture and use only sign language, and still others use a combination of both. The parents' decision can be affected by many circumstances, including whether the parents are deaf, how they view deafness, and whether they are willing and able to learn sign language.

The second type of auditory disorder is **central auditory processing disorder**, or CAP. This is when a child can hear sound, but has trouble interpreting and integrating the signals he gets from his ear in his brain.[6] This can affect many aspects of language comprehension. For example, many "CAP kids" have difficulty perceiving the time and order in which sounds are produced, and, for example, might hear "tike" instead of "kite." Another common problem is sound localization, which is perceiving what direction a sound is coming from.[7] This disorder can sometimes be confused with a language disorder because many of the symptoms are similar. Research is still being conducted on the differences between them, as CAP is a fairly recently identified disorder.

What educational skills could be affected?

Following Directions

Understanding directions is a common problem for those children with an hearing disorder. Following directions is a very important skill needed throughout the school years. Academic success is dependent on whether or not a child can understand and do what is asked of him. A child might be labeled "a problem child," or be diagnosed with a behavioral disorder, when really he just cannot process or comprehend what is being asked of him. There are several adaptations that can be made in the classroom, such as the use of an auditory trainer (discussed on page 16), and positioning of the teacher so the child can see his or her mouth.

Participating in a Conversation

Conversational skill is an essential ability needed for school, but more than that, it is a social skill that is necessary for any relationship, be it with someone you talk to in line at the

grocery store or your spouse. Depending on the number of speakers, having a conversation may be one of the most demanding skills for a child with a hearing disorder. A child with a hearing disorder has to concentrate on straining to hear or interpret the speaker, reading the speaker's lips, and interpreting body language to figure out what is being said. This may be more effort than a child wants to put forth on a regular basis, and his social skills may suffer.

Learning Language in General

A child who has a central auditory processing disorder will have specific problems comprehending language as part of his disorder. These difficulties, some of which are identified on page 17, may be improved through speech therapy. A child with a hearing loss, however, may become language delayed simply because he cannot hear spoken language in order to learn it. The extent of language delay largely depends on how early he was diagnosed and began receiving help. It is essential to address your child's hearing disorder and begin providing language input from an early age.

Articulation

If a child cannot hear certain sounds correctly or at all, he will have trouble producing them. If your child has a hearing loss, you should be able to tell which sounds he will have trouble with when his audiologist tests his hearing and determines the degree of hearing loss. If your child has CAP, you will not be able to predict articulation problems. If your child is diagnosed before he starts school, you can work on showing him how to produce certain sounds as he is learning language.

What can I do at home?

- Remember that your child is in school all day. Don't make him feel like his home is just for more school work.
- Look into options that might benefit your child's hearing, such as hearing aids and auditory trainers. Remember, the sooner your child's hearing can be improved, the better his language will be.
- Speak clearly and at a normal volume when speaking to your child. Make sure that he can see your mouth.

- Read and talk to your child often. This maximum exposure will give him the best chance for learning language, and it will motivate him to want to talk back.

Fluency Disorders

What is fluency?

Fluency means the smoothness of speech.[1] Normal speakers speak fluently, however, even normal speakers have some disfluencies. A disfluency is when speech is interrupted in some way, such as with repetitions, or prolongations.[2] These two main types of disfluencies are outlined in figure 4.1.

Figure 4.1 Types of Disfluencies[3]

Type	Description	Examples
repetition	To repeat several times in a row a sound, syllable, word, or phrase	"I like t-t-t-trucks." "My-my-my mom is here."
prolongation	To lengthen a speech sound or pause for a time, usually in attempt to avoid stuttering	"I lllllllove you." "My dog is named Sssssam."

What is a fluency disorder?

There are three types of fluency disorders: stuttering, cluttering, and spastic dysphonia. **Stuttering** is the most common type of fluency disorder. Because even normal speakers have occasional disfluencies, it is difficult to accurately describe stuttering. Speech pathologists Charles Van Riper and Robert L. Erikson explain this problem in their book *Speech Correction*:

> All agree that the flow of speech is interrupted when one stutters. . . The definition problem arises because all of us have interruptions in our fluency. . . Occasionally we stumble, repeat, or hesitate, and our fluency breaks occur more often under communicative stress. But do we all stutter? The answer is, of course, no. . . Is it just a matter of degree or frequency? Again, we feel that the answer is no.[4]

The main characteristic of stuttering as compared to normal disfluencies, is a conscious struggle with speech. While an occasional disfluency doesn't really bother a normal speaker, even the thought of a stressful situation in which a stutterer must speak can cause stuttering. A person may stutter when he thinks about stuttering, or when he is trying to avoid it.[5] Further proof of this is that most stutterers can speak in unison with someone else, speak or sing in rhythm, talk

to themselves, and act without stuttering. This shows that stuttering frequently comes about when a stutterer must express himself to others without previous rehersal.[6]

There have been many theories proposed as to what causes stuttering, and it is safe to say that there are different causes for different people. Most theories describe stuttering as the result of an emotional difficulty, such as insecurity, stress, or fear. Some say that a child may just think faster than he can speak. Many identify stuttering as a kind of self-fulfilling prophecy -- the child thinks or has been told that he will stutter, so he does. Some believe that stuttering runs in the family.[7] There is still no solid explanation as to why stuttering occurs. In fact it could very well be a combination of the theories above. A speech therapist will be able to identify situations that bring on stuttering, and find techniques that work to alleviate them for each individual child.

The second type of fluency disorder is **cluttering**, or tachyphemia. Some speech pathologists may lump cluttering in with stuttering, possibly because, in addition to speaking too quickly, many of the disfluency patterns are the same. The main difference between stuttering and cluttering is that a clutterer is not aware of the disorder, unlike the stutterer, whose awareness of the problem is part of its cause. Because the main characteristic of stuttering is a conscious struggle with speech, the two disorders are different and should be treated differently. Most clutterers have other disorders, such as language and articulation problems as well, so cluttering may not be identified as a specific disorder, but rather as part of another one.[8]

The third type of fluency disorder is **spastic dysphonia**. Spastic dysphonia is different from the first two fluency disorders in that the disfluencies occur in a different area. Spastic dysphonia means that the muscles of the larynx (or the voice box) spasm, causing intermittent "choking" or "strangled" sounds. The situational characteristics are much like those of stuttering, however, it is the larynx that "stutters."[9]

What educational skills could be affected?

Participating in a Conversation

In addition to having trouble being understood by a conversational partner, a child who stutters or has spastic dysphonia will probably avoid this situation all together. Those who clutter, or stutterers who work up the nerve to speak, may be easily frustrated when people cannot understand them, do not have the patience to listen to them, or even laugh at them. As we

know, conversation is important to developing social skills, as well as to academic success.

Social Skills

This goes hand-in-hand with participating in a conversation, but goes a step further. Children who have a fluency disorder may become frustrated to the point that they do not make friends and keep almost completely to themselves. Another problem is that these disorders are often misunderstood. Some think that if a stutterer would just slow down, he would be fine. Also, it may be hard to understand why someone can speak just fine when playing by themselves or reading with the class, but stutters when asked to answer a question or talk to a classmate.

Language Learning in General

This applies to clutterers who experience a pattern of speech disorders, such as language or articulation. If cluttering seems to describe your child, you may want to read the chapters on language disorders and articulation disorders for more detail.

What can I do at home?

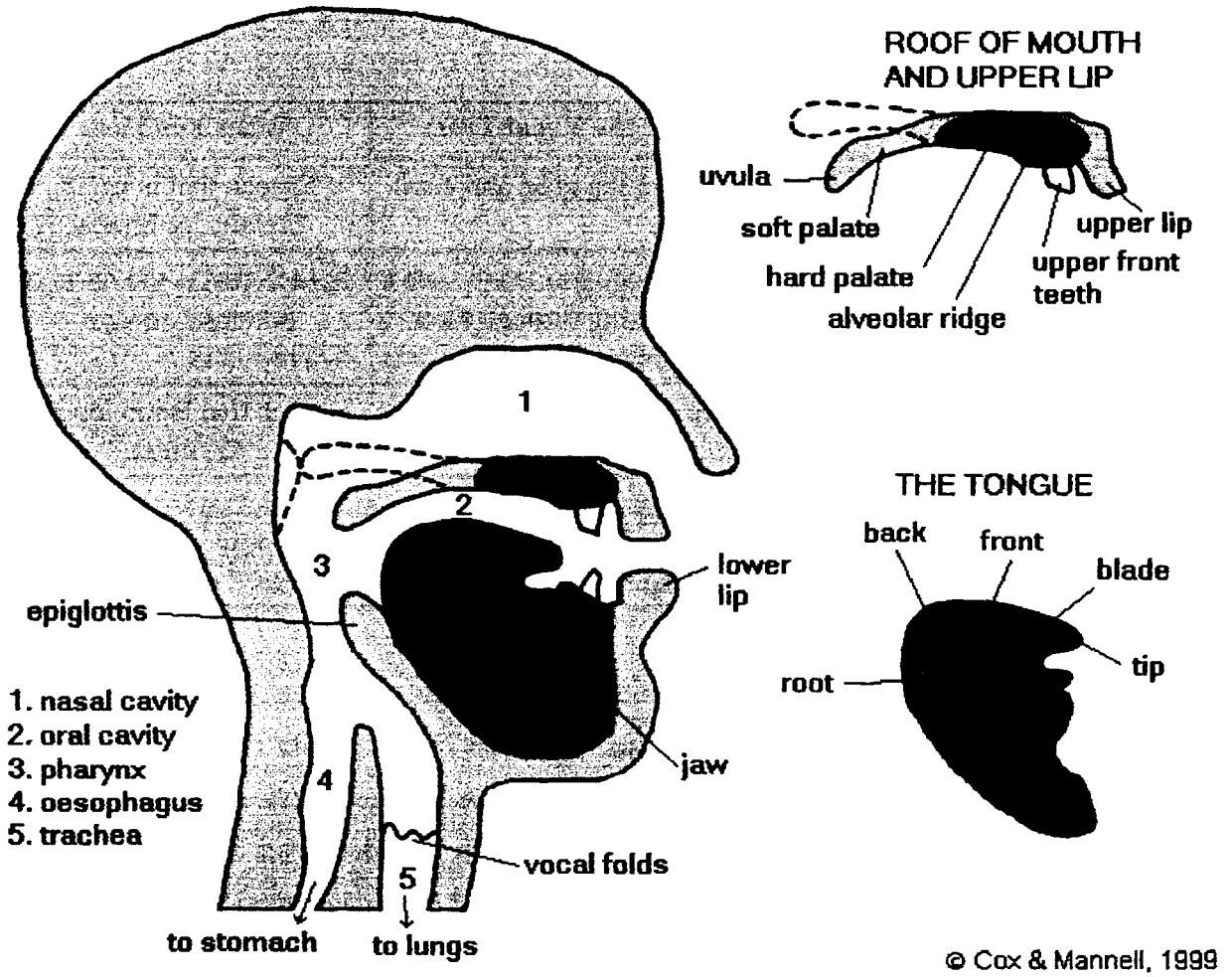
- Remember that your child is in school all day. Don't make him feel like his home is just for more school work.
- Don't put pressure on your child when he experiences a disfluency; this may cause him to stutter more. If you think that stressful situations in the home or in another environment could be what caused the problem, try to change those situations so that there is less pressure put on your child. For example, a common scenario is the "looking over the shoulder" situation, in which a child feels stress and scrutinization at every turn.
- Encourage your child to talk to you and others by initiating conversation about things your child finds interesting. You want to inspire him to talk, not force him.
- Never ridicule your child when he experiences a disfluency hoping that "punishment" will cause the behavior to stop. This will only worsen the stuttering.
- Understand that stress can be very real for a child, even though children may not have "adult problems."

Voice Disorders

What is voice?

Voice is the sound produced when a breath of air comes up through the vocal folds causing them to vibrate and make sound. This sound can then be changed by the resonation that occurs in the mouth and nose.[1] In figure 5.1, you can see the vocal tract, or the path the air travels to make a voice. The air begins at the lungs, and comes up through the trachea (#5), to the vocal folds, vibrating them and creating sound. The sound then travels up through the pharynx (#3), the oral cavity (#2), and the nasal cavity (#3), where it is resonated. It finally passes out of the mouth after being formed into speech by the palate, tongue, teeth, and lips.

Figure 5.1 The Vocal Tract [2]



What is a voice disorder?

We can all identify a problem voice. It could be too high or too low, maybe it's scratchy or breathy, or so quiet we can barely hear it. There are many people in the world who speak in a voice that does not fit what we think a voice should sound like. Sometimes voice abnormalities are just bad habits. If this is the case, it is up to the person, or the parents of a child, whether to change his voice in speech therapy if it is causing him difficulty or embarrassment. However, sometimes an abnormal voice can signify damage to the vocal tract, in which case speech therapy or even surgery may be required.

There are four basic types of voice disorders: voice quality disorders, resonance disorders, loudness disorders, and pitch disorders.[3] Voice disorders tend to be made up of a mix of these four types, but could be just one. Each of the four types of voice disorders are described in Figure 5.2, below.

Figure 5.2 Four Types of Voice Disorders [4]

Type of Disorder	What's Going On in the Vocal Tract	What You Hear
voice quality disorder	The vocal folds are vibrating in an abnormal way.	Speech that is harsh, breathy, or hoarse.
resonance disorder	The oral or nasal cavities are formed in such a way that the sound passing through them becomes abnormal.	Speech that is too nasal or not nasal enough.
loudness disorder	Too much or too little air is being pushed from the lungs through the vocal tract.	Speech that is too loud or too quiet.
pitch disorder	The vocal folds are vibrating too fast or too slow, or are switching between the two at an abnormal rate.	Speech that is too high or too low, a voice that "cracks," or is monotone

There are many different causes of voice disorders. Most loudness disorders, and so pitch problems, are a result of habit, and usually can be changed with practice. Resona disorders could be due to habit, or to a malformation of the oral or nasal cavities, which may n surgery to correct. Voice quality disorders, and some pitch disorders, can be due to phys growths on the vocal folds. Do remember that both girls and boys can experience voice qu problems when going through puberty because of the rapid growth of the larynx; don't con

this phenomenon with a disorder.

There are several different types of growths that can form on the vocal folds, usually due to vocal abuse like yelling too much, or stress.[5] These growths can cause dysphonia, which is a complete loss of the voice, or they could cause a voice quality problems. The most common growths that could develop are vocal polyps and vocal nodules. Vocal polyps are liquid-filled sacs that grow on the vocal folds, interrupting the natural vibration that should occur when speaking. Vocal nodules are red or white lumps of tissue that can be firm or soft. These also disrupt the natural vocal fold vibration.[6]

What educational skills could be affected?

Social Skills

Voice disorders will not directly affect academic performance, but may indirectly affect it by way of social skills. If a child is embarrassed about his abnormal voice he may not speak up in class, ask questions of the teacher, or make friends. This could cause his school performance to suffer. It is important to find out from your child whether or not his voice embarrasses him. A case described by D. Kenneth Wilson in his book *Voice Problems of Children* illustrates this point:

> One boy of 9 had what we considered a very high-pitched voice. However, the teacher and parents reported that they thought his pitch level was all right but that he did not talk very much. Other children did not react to his high-pitched voice, and it did not seem to be a problem until we asked the boy himself what he thought about his voice. He replied, "I sound like a girl so I don't talk any more than I have to. . . You're a speech teacher, can't you make me talk more like a boy?"[7]

What can I do at home to help?

- Remember that your child is in school all day. Don't make him feel like his home is just for more school work.
- Make sure to talk to your child about his voice. Ask how he feels about it. Does he wish he could change it? Does he feel embarrassed by it? How do his peers and teachers react to it? You might want to look into your school's counseling service if you think your child may have self esteem issues.

- Remind your child to practice his new voice. Remember that if he does not think of his voice as a problem he may have no motivation to change it, even if there is a medical need to do so. Compliment your child on his new voice, and praise him when he uses it.
- When you can, make sure that your child is not abusing his voice. Vocal abuse can include: yelling too much, anxiety, excessive throat clearing or coughing, and regularly talking until hoarse. Also, be a role model yourself by taking care of your own voice.
- Look into surgery options if some physical abnormality is causing the voice problem.
- If your child seems to have a voice quality disorder, it is important to see a doctor to determine the cause and what can be done about it, or more damage could be done. You may have already received a referral from your child's school therapist about this.

Speech Language Disorders in a Global Setting

The five types of speech language disorders that have been discussed in Section 1 of this guide do not always occur individually. Many of these disorders can occur together, or as part of a larger disorder. This is often the case when a child has an emotional, behavioral, or mental disorder, or a disease or major injury. In schools, a speech pathologist will identify and work on only the speech and language disorders that are part of an overall disorder. In an ideal situation, a school will have a social worker, an occupational therapist, a special education teacher, or a resource teacher who can work together with the speech therapist and the general education teacher to integrate lessons and get the best results for the child.

Some children have severe disorders, normally very physically involved, that may require more than just oral or signed communication. If a child cannot speak, augmentative alternative communication methods are often employed. Augmentative alternative communication, or AAC, is any device that is used to facilitate communication. This could include communication boards on which a child points to pictures or words, or electronic devices that "talk" when specific buttons are pushed.[1] Public schools should be able to provide some AAC materials for children with severe communication needs.

Whether your child has a single communication problem or a larger disorder, it is important to incorporate everyone who works with your child into his therapy plan, especially his general education teacher. Communication between your child's regular teacher and his speech therapist is essential so that his regular teacher knows what to expect and how to adapt. Also, this allows the speech therapist to use topics, spelling words, or reading materials that your child is already working on in his regular classroom. This way your child's school experience can be consistent and more meaningful. When you conference with your child's teacher, his speech therapist, and any other professionals he is working with, request that you all meet together. If this isn't possible, which is many times the case, ask how each therapist or teacher is working with your child's "clinical team."

Section 2

Speech-Language Therapy in Schools

Special Education Laws: What Is Your Child Entitled To?

There are federal and state laws that were issued in order to define, identify, and provide services for those with disabilities, including speech and language disabilities. This section describes some of the important laws that you should know as a parent to make sure your child is getting what he needs and is entitled to by law. The state laws described here are from Indiana; make note that other state's laws may be different.

Individuals with Disabilities Education Act (IDEA)

Federal Public Law 94-142, nicknamed IDEA, was passed in 1975. The purpose of IDEA is to:

1. "assure that all children with disabilities have available to them . . . a free appropriate public education which emphasizes special education and related services designed to meet their unique needs,
2. "to assure that the rights of children with disabilities and their parents or guardians are protected,
3. "to assist states and localities to provide for the education of all children with disabilities,
4. "and to assess and assure the effectiveness of efforts to educate children with disabilities."[1]

There are six principles of IDEA. The first one is known as "Zero Reject." This means that all children with disabilities will be included in public schools. Schools must find and evaluate children between the ages of 3 and 21. The second principle is "Nondiscriminatory Evaluation," meaning that schools must use several different tests in order to figure out a child's placement. Also, culture and foreign language must be taken into consideration. The third principle is "Free and Appropriate Education." This means that the school is to pay the cost of each child's special program, and that an individualized education program (IEP) must be developed for each child. "Least Restricted Environment" is the forth principle. This means that

a disabled child will be educated in the environment that is the least restrictive to him -- in a regular classroom if possible. The fifth principle is "Due Process Safeguards," which describes parental consent and confidentiality rules. The last principle is "Parent and Student Participation." This means that parents and students over 14 must be included in the planning of an individual program.[2]

If you would like to learn more about IDEA, go to www.ideapractices.org/idealaw.htm on the internet.

Indiana State Board of Education Special Education Rules

Every state's Board of Education should have material that describes Special Education regulations, which is usually updated every few years. These rules basically spell out specifically how the public schools will follow IDEA, the federal Special Education Law. Indiana's Board of Education breaks down into sections describing each disability and how they will provide services for that disability. It also describes identifying procedures, initial assessments, and reevaluations. Summarized below are the rules relating to communication disorders. Please note that the rule below is not complete. If you would like to view the complete rule or any other rules you can request a copy of the booklet from your school district.

Rule 25, IAC 7-26-3 Communication disorder[3]

Sec. 3. (a) A communication disorder is characterized by one (1) of the following disorders that adversely affects educational performance:

(1) Articulation disorders that are incorrect productions of speech sounds.

(2) Fluency disorders that are disruptions in the rate or rhythm of speech.

(3) Voice disorders that are abnormal productions of pitch, intensity [loudness], resonance, or quality.

(4) Language disorders that are impairments in the comprehension or expression of spoken or written language, including one or more components of the language system such as:

(A) language/auditory processing (B) word retrieval
(C) phonology (D) morphology
(E) syntax (F) semantics
(G) pragmatics

(5) Severe communication deficits that may require the use of an augmentative communication system, such as:
(A) gestures (B) sign language
(C) communication boards (D) electronic devises
(E) any other system

(b) Identification as a student with a communication disorder and eligibility for special education by the case conference committee based on a communication evaluation consisting of more than one evaluation material.

Other disorders that are specifically identified that may relate to speech or language difficulties are: Emotional disabilities, Hearing impairment, Learning disability, Mental disability, Multiple disabilities, and Traumatic Brain Injury. In many cases, a child may be labeled with several disabilities that are all interrelated, or seem to be part of an over-all disability. For example, if a child has Down Syndrome, he might be categorized under Communication disability, Mental disability, and possibly Hearing impairment as well. This is done in order to justify funding and to provide all services necessary, such as speech therapy, resource, psychological services, developmental therapy, etcetera.

Individual School District Rules and Procedural Safeguards

Many school districts will have their own booklets that describe state and federal rules, and any extra or specific rules that they have added. Because of the individual nature of these rules, they will not be outlined here, but you should request a copy of your school district's rule booklet from your child's school.

Reporting:
Designing Programs and Tracking Progress

Paperwork is an important element in school speech pathology programs because this is the way that the school keeps records, shows proof of services, and receives funding. There are several types of standard paperwork that school speech pathologists will use to design your child's individual program and track his progress. Many of these reports will be discussed in speech therapy parent conferences, but others may just be sent to you in the mail. Note that each school or school district will most likely have their own version of, or even a different name for, each of the types of paperwork mentioned here.

Permission Forms

Permission from parents to do any sort of testing or placement is necessary. However, the first step in school speech pathology is usually a **language screening**. Your child may receive a language screening given as a standard screening for all children (usually when they are in kindergarten), or based on a referral by his regular teacher if she has noticed a possible problem.[1] This screening is normally a short, basic test that a child will either pass or fail. It can be likened to hearing screenings, or scoliosis screenings that all children in certain grades go through. If the child fails the screening, it means that he should receive further speech and language assessment to determine whether he has a disorder, what the disorder is, and what specific areas need to be worked on. Make note that just because a child fails a screening does not mean he has a speech language disorder. He could be feeling sick, having a bad day, or the test administrator could have made a mistake. That is a reason why further assessment is needed to make sure.

If your child does not pass a language screening, you may receive a **"permission for evaluation" form**. Note that this form may be called different things at different schools. A permission for evaluation form normally includes information such as: your child's identifying information (name, age, etc.), the areas of your child's communication that require further assessment, information about procedures that could be used, when the assessment will take place, how the assessment will be reported, and when a case conference will take place. There

will also be an area or a separate form for you to sign and check whether or not you give your consent for assessment. Many times, a copy of your school's evaluation and therapy policies will be included for you to review. If they are not, make sure to ask for a copy so you can be aware of the rules and regulations your school intends to follow when servicing your child.

Another type of permission form you may encounter is a **"placement proposal" form**. This form is used when your child has gone through speech and language evaluation, and he has been identified as having some type of speech language disorder. By law, those students who have been identified as having a speech or language disorder must be offered therapy services by the public school. This form may be presented to you during the case conference or mailed to you afterward. It might include information such as: your child's identifying information (name, age, etc.), what speech language disorder categories he falls under that qualify him for services, the therapy environment recommended for him, any related services or assessments for which he is recommended, and a place to sign and check whether you agree with the placement recommendation or not.[2] Sometimes therapy departments within the school will combine information, and there may be other areas besides speech and language included on the same form, such as emotional, behavioral, learning, or other disabilities. If your child falls under the category of multiple disorders, a form like this is ideal because it means that, most likely, all the professionals that will be working with your child are working together.

Individual Education Plan (IEP)

By the mandates of IDEA, the Individuals with Disabilities Education Act (see page 29), school students in any type of therapy or special education program are entitled to an **individual education plan**, or an IEP. An IEP is just what it sounds like: a plan created to address the individual needs of a student's special education. Normally, an IEP will include the child's identifying information, a description of the child's present performance, a list of long-term and short-term goals that the therapist wants to work on with the child in therapy, adaptations for the regular classroom if needed (such as, for a child with a receptive language disorder, tests may need to be given orally instead of written), a statement explaining if and when the child will not participate in his regular classroom, an explanation of the therapy services he will receive, and how his progress will be measured and shared with the parents.[3]

The IEP is important because it is the document that describes all the special services tha

your child will receive. It is important that you go over this report carefully with your child's therapist and ask questions about anything you don't understand. Remember that the IEP is specific to your child, and that you are a very important part of the process. IDEA is specific about the components of an IEP, as well as who should contribute to developing it. Most likely, the speech therapist will actually develop it, but others who should be included in finalizing it should be the parents, at least one general education teacher, any other special education professionals who will be working with the child at school, and the child if he is over age 14 (he may contribute if he is younger but is not required to). IDEA has identified several other people that might be included in special or extreme circumstances, such as an interpreter, a local education agency representative, or other experts from outside the school.[4]

Progress Report / Case Conference Report

Your IEP should state how often progress will be discussed. This might be once every school year, once every semester, or more depending on the disorder and the severity. Usually there will be a parent conference every time a new progress report is written. The information included is usually the child's identifying information, a statement about the services he is receiving, and the progress that he has made. This report may come as a review of the information provided in the IEP with the addition of a statement about the progress made for each short term and long term goal. This information could be presented in numbers, such as "Johnny increased from 5 out of 20 correct productions of the 's' sound to 15 out of 20." It could also be presented in words, such as "Johnny showed a moderate improvement in the production of the 's' sound.

In the Therapy Room:
Speech Language Assessment

According to IDEA (Individuals with Disabilities Education Act), the principle of "Nondiscriminatory Evaluation" must be followed. This means that your child must be evaluated for speech language disorders using more than one assessment tool. This is a necessary distinction to make because of the nature of the testing situation. If your child has a bad day, is sick, is not good at taking a particular test, or is from a culture that does not deal with some of the pictures he might see on a test, the results of a test have become invalid. Validity means that an assessment tool tests the skills that it says it is going to test. Therefore, if one of the above situations is occurring on the day your child takes the test that will determine his placement in therapy, the results are not valid because the test is not truly testing your child's speech and language skills. This is why there must always be multiple assessment tools used in deciding placement.

There are two main types of assessment tools used in evaluating a child for placement in therapy: standardized tests and informal assessment. Usually, the speech therapist will use a combination from both of these categories. Following, each is explained in detail.

Standardized Tests

This category is probably what you think of when you think of assessment for therapy placement. Formal standardized tests are tests that have been developed by speech language researchers and have been normed on a large sample of children. To norm a test means to give the test to many different children of many different ages, geographical areas, intelligence levels, cultural groups, and economic levels, and use their scores to determine below average, average, and above average scores for each age group. This way, speech therapists can compare your child's score to the scores of other children his age and determine what level he's at.

There are many standardized tests that a school speech therapist might use to determine placement for your child. Some tests have to do with general speech and language skills, while others are designed for testing specific skills or diagnosing a particular disorder. Many schools have a small selection of tests that they normally use. Two major considerations for choosing

this selection are cost and administration time. According to a survey done in 1997, 41% of school speech pathologists said that cost was one of the biggest problems with standardized tests, and 74% listed administration time as a major concern.[1] Standardized tests are expensive, usually ranging from $100 to $300, sometimes more. The school must decide carefully what is the best use of their money, and may not be able to afford a large variety of tests. Administration time, or the amount of time it takes to give the test, is also very important. School speech pathologists must see many children throughout the day, and just cannot spend the time giving extremely lengthy tests to each and every child.

Standardized testing is important because it is the way that speech therapists can officially determine that a language disorder exists in order for a child to qualify for services. Normative data allows for an objective decision to be made; according to a test the child falls either above or below the line that separates disordered from non-disordered children. If standardized tests were not used for this purpose, it would be up to each speech pathologist's discretion whether or not a child qualifies for therapy, and then school therapy rights would not be equal for all children. One school might service even the most mildly disordered children, while another school might serve only those who are severely disordered.

Informal Assessment

Informal assessment is any type of assessment done that is not standardized. This can include interviews, observation, interactive play, or a test created by the school speech pathologist that has not been standardized and published. Informal assessment, sometimes called dynamic assessment, is used when the therapist wants to get an idea of your child's functional language. Functional language means the language your child uses in everyday situations as opposed to a testing situation. Informal assessment can also be used to determine what standardized tests would best show your child's speech and language skills. A third use of informal assessment is to determine your child's learning style and most functional teaching situations. From observing how a child plays and asking about what he does everyday, the therapist can use these natural situations to teach speech and language.

In the Therapy Room:
Speech Language Therapy

There are three main types of therapeutic situations that might be used at school. The first situation is individual or pull-out therapy. This means that the school therapist works with your child one-on-one in the therapy room.[1] The second type of therapy situation is group therapy. This is when the therapist groups several children who have similar disorders or goals they are working on together.[2] Because these two situations are the most commonly used, and the most alike, the advantages and disadvantages of both are compared below in Figure 10.1.

Figure 10.1 Individual and Group Therapy Compared

	Individual Therapy	**Group Therapy**
Advantages	1. Your child gets his therapist's full attention 2. Your child works on only his goals. 3. Your child's time spent with the therapist is efficient, with no distractions to deal with.	1. Your child gets practice in social situations. 2. Your child gets a break when the therapist is working with another child. 3. Your child gets the experience of helping other children with their speech and language problems.
Disadvantages	1. Your child gets no practice working and socializing with others. 2. There is no group encouragement or help with each other's goals.	1. Your child does not get all of his therapist's attention. 2. Your child has to wait while the therapist works with other children.

As you can see, there are several advantages and disadvantages to both therapy situations. The therapy situation in which the school therapist chooses to place your child has to do with the type and severity of his disorder, whether there are other children with a similar problem, and the amount of time the therapist has to provide therapy. Unfortunately, many parents feel that their child would benefit more from individual therapy than group therapy, but

there is often just not enough time during the day for every child to be treated separately.

The third therapy situation is different from the other two, and is recently being used more often. This situation is classroom-based intervention.[3] This is when the therapist actually goes into the classroom and works with different children while they are involved in a play or free time activity, or during lessons such as reading. This way, the child is not taken out of the classroom, and the therapist can move around to different children. Also, the child can practice speech and language in a natural setting rather than in a contrived one.[4]

Conclusion

As your child continues the school speech language therapy experience, make sure that you as the parent are as informed as possible about your child's problems, his goals, and his progress. You are a very important part of your child's speech and language development, and your child and his school therapist can not do it without you. Hopefully, this guide will aid you and your child throughout the school years to come.

End Notes

How to Use This Book

1 The ASHA Leader (10)

Language Disorders

1 Nicolosi (149)
2 Nicolosi (149)
3 Gleason (2-6)
4 Heward (332-333)
5 Leonard (3)
6 Heward (342)
7 Eisenson (3)
8 Wood (95)
9 Haynes and Naidoo (36)
10 Haynes and Naidoo (37)
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12 Ferrand and Bloom (35)
13 Martin and Pear (27)

Articulation Disorders

1 Nicolosi (74)
2 Shriberg and Kent (13)
3 Shriberg and Kent (front cover)
4 Shriberg and Kent (29-44)
5 Van Riper and Erickson (208)
6 Van Riper and Erickson (98)
7 Nicolosi (210)
8 Van Riper and Erickson (415)
9 Caruso and Strand (11)
10 Hoffman (130)
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